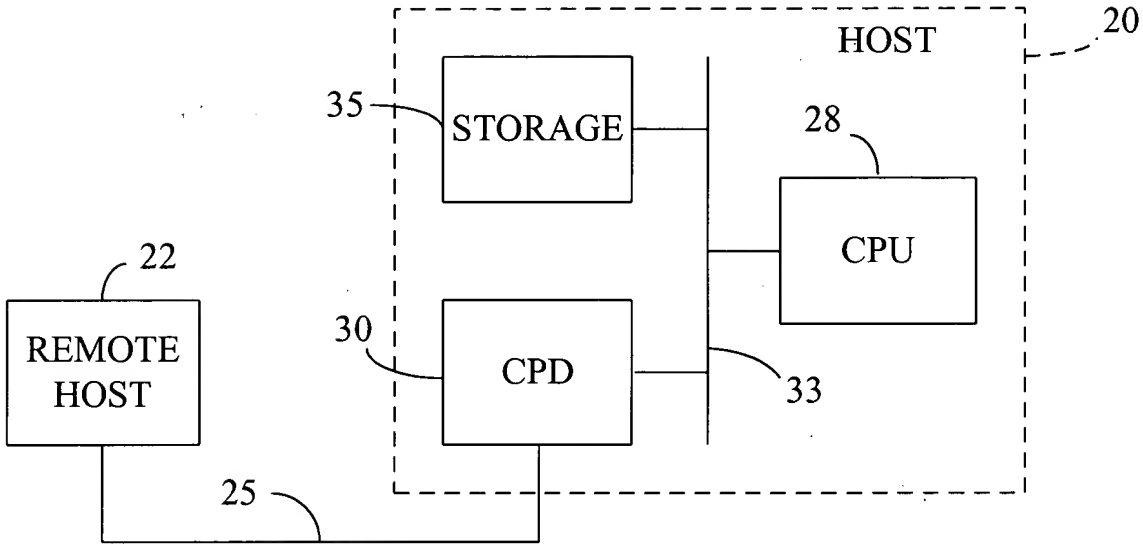
HOST
20
35
STORAGE
28
CPU
22
REMOTE HOST
30
CPD
33
25

FIG. 1

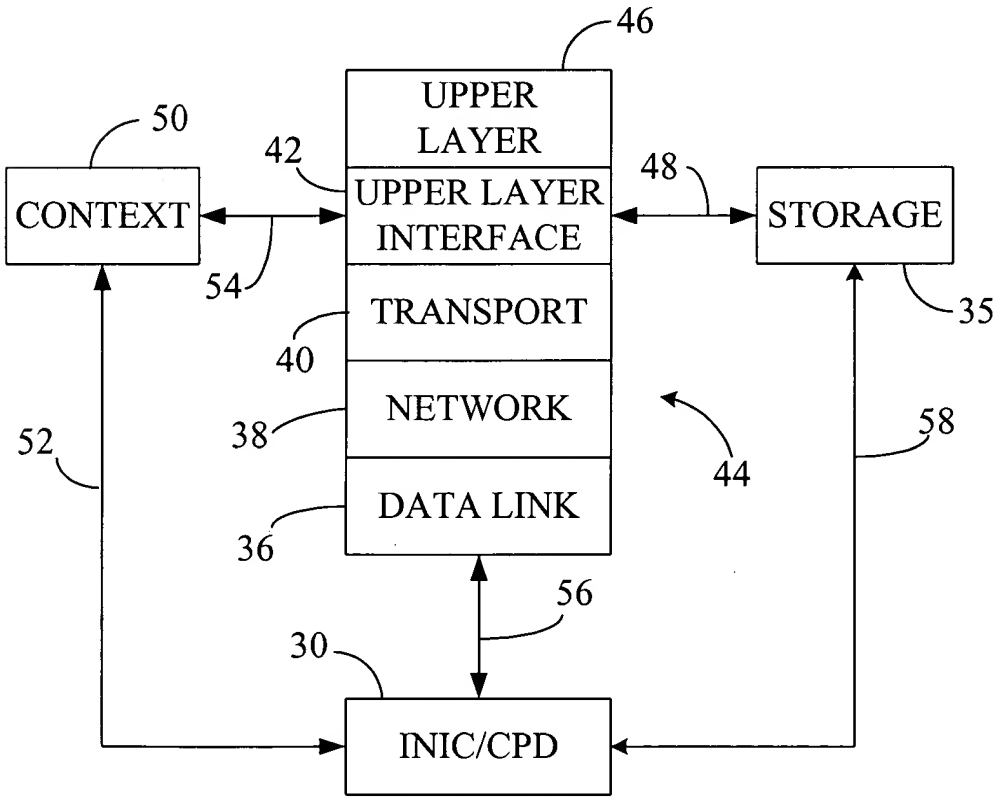
46
UPPER LAYER
50
42
CONTEXT
UPPER LAYER INTERFACE
48
STORAGE
54
TRANSPORT
35
40
NETWORK
38
52
58
44
DATA LINK
36
56
30
INIC/CPD

FIG. 2

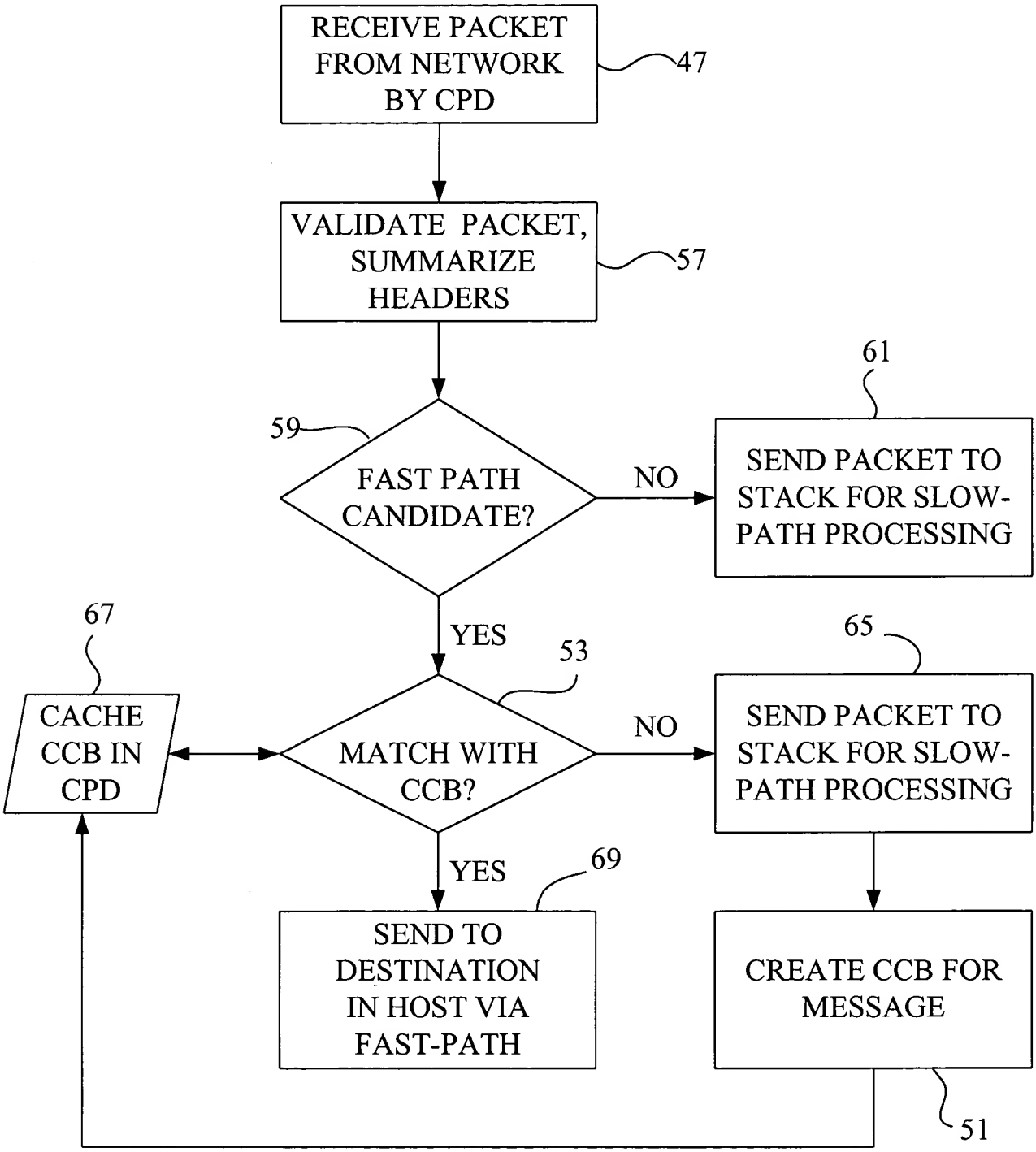
RECEIVE PACKET FROM NETWORK BY CPD
47
VALIDATE PACKET, SUMMARIZE HEADERS
57
61
59
FAST PATH CANDIDATE?
NO
SEND PACKET TO STACK FOR SLOW-PATH PROCESSING
67
YES
65
53
CACHE CCB IN CPD
MATCH WITH CCB?
NO
SEND PACKET TO STACK FOR SLOW-PATH PROCESSING
YES
69
SEND TO DESTINATION IN HOST VIA FAST-PATH
CREATE CCB FOR MESSAGE
51

FIG. 3

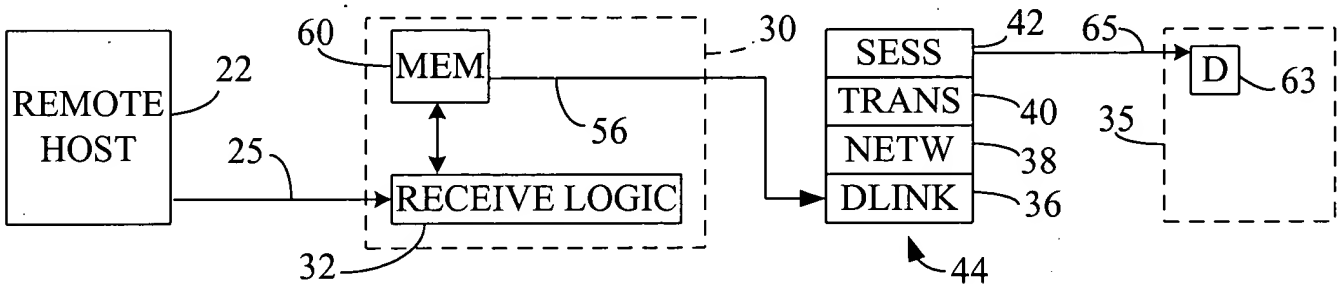

FIG. 4A

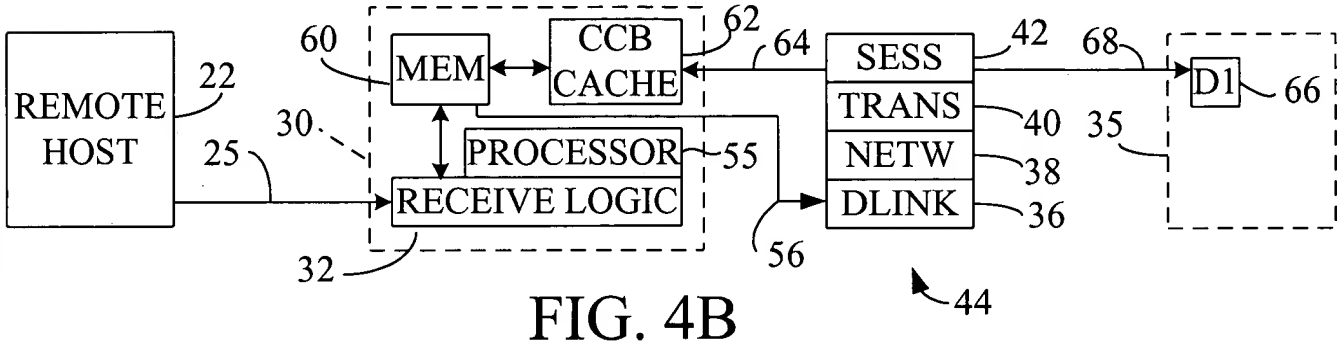

FIG. 4B

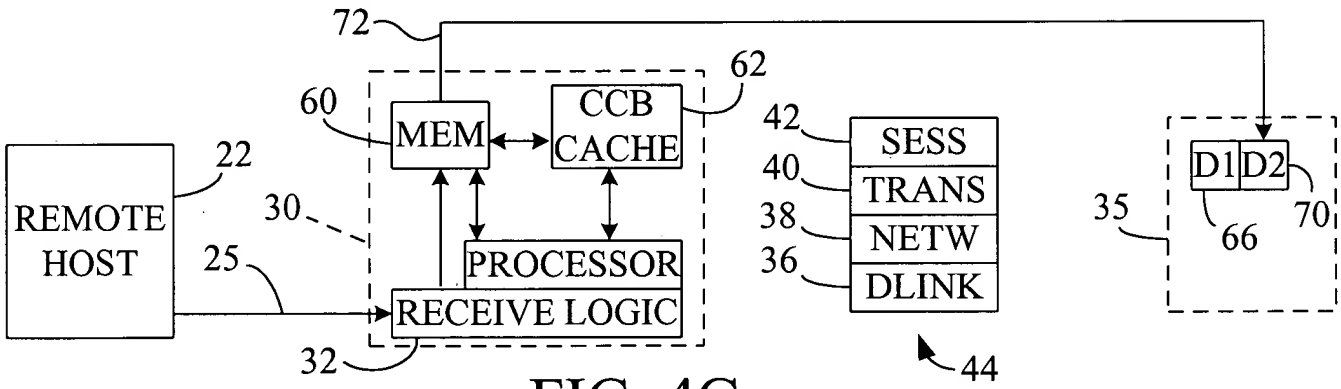

FIG. 4C

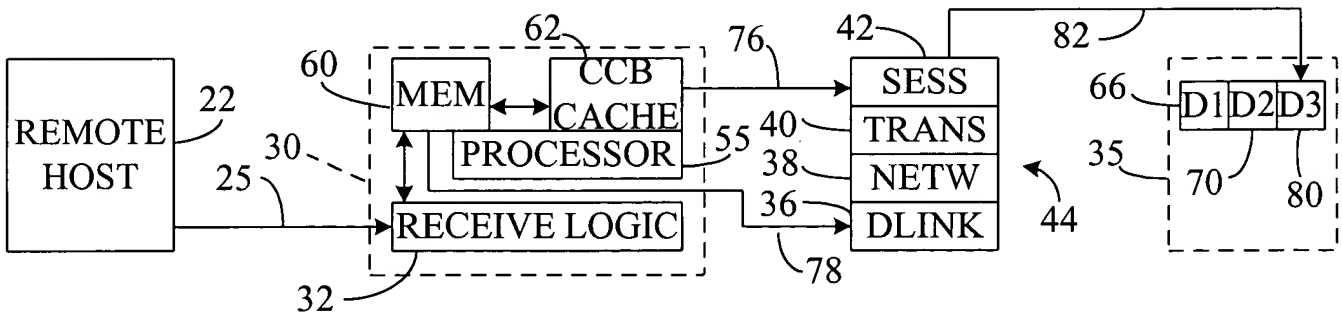

FIG. 4D

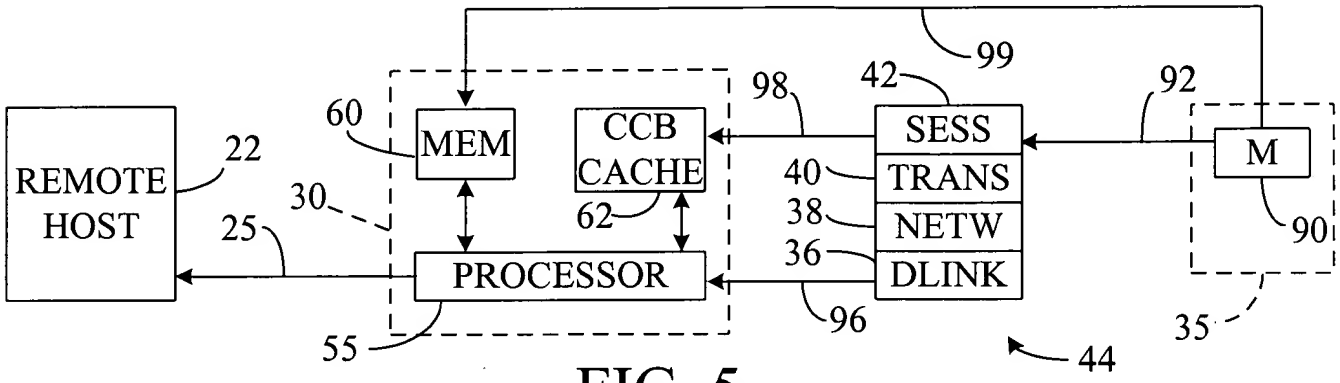
99
98
42
92
60
MEM
CCB
CACHE
SESS
M
REMOTE
HOST
22
40
TRANS
30
62
38
NETW
90
25
36
PROCESSOR
DLINK
96
35
55
44

FIG. 5

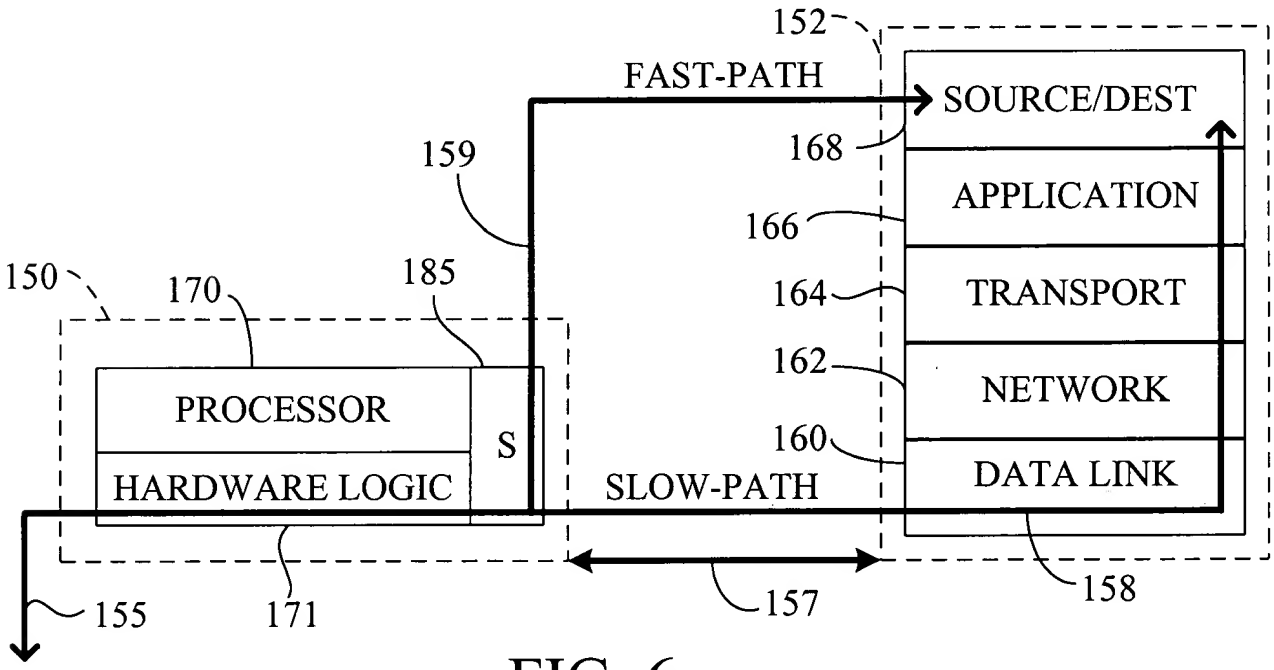
152
FAST-PATH
SOURCE/DEST
168
159
APPLICATION
166
150
170
185
164
TRANSPORT
PROCESSOR
S
162
NETWORK
160
HARDWARE LOGIC
SLOW-PATH
DATA LINK
155
171
157
158

FIG. 6

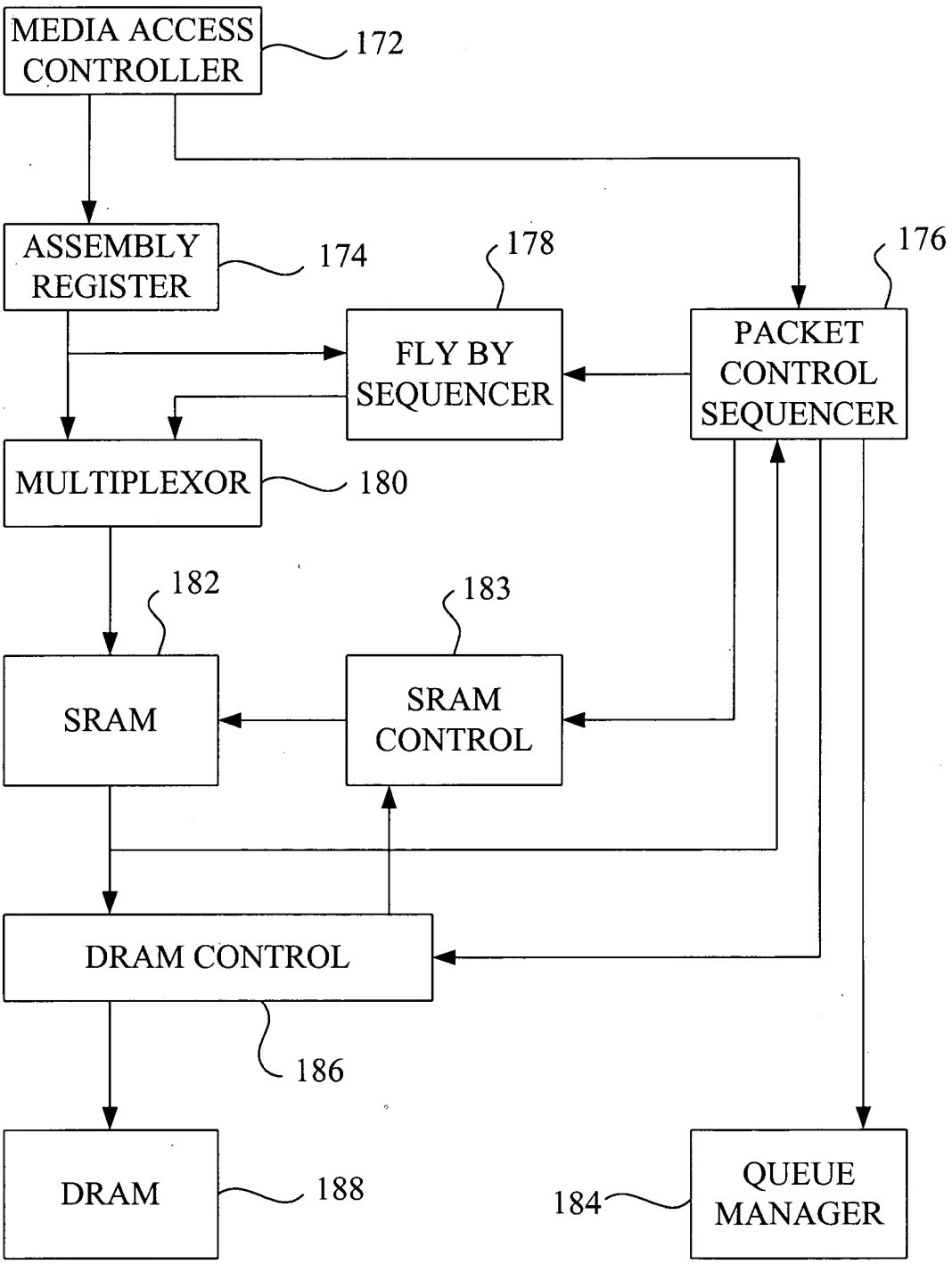
MEDIA ACCESS CONTROLLER
172
ASSEMBLY REGISTER
174
178
176
FLY BY SEQUENCER
PACKET CONTROL SEQUENCER
MULTIPLEXOR
180
182
183
SRAM
SRAM CONTROL
DRAM CONTROL
186
DRAM
188
184
QUEUE MANAGER

FIG. 7

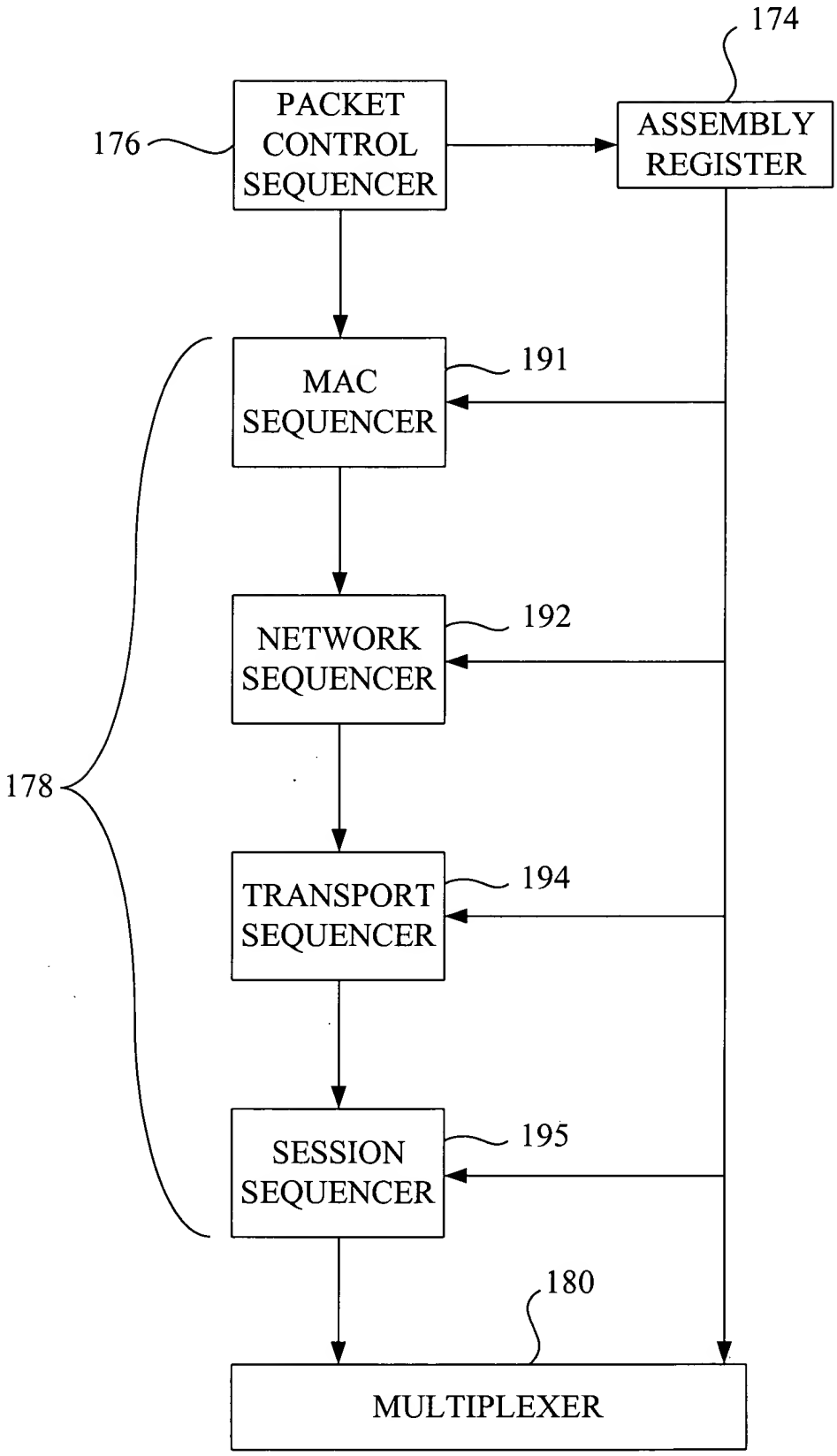

FIG. 8

Docket No. ALA-002A

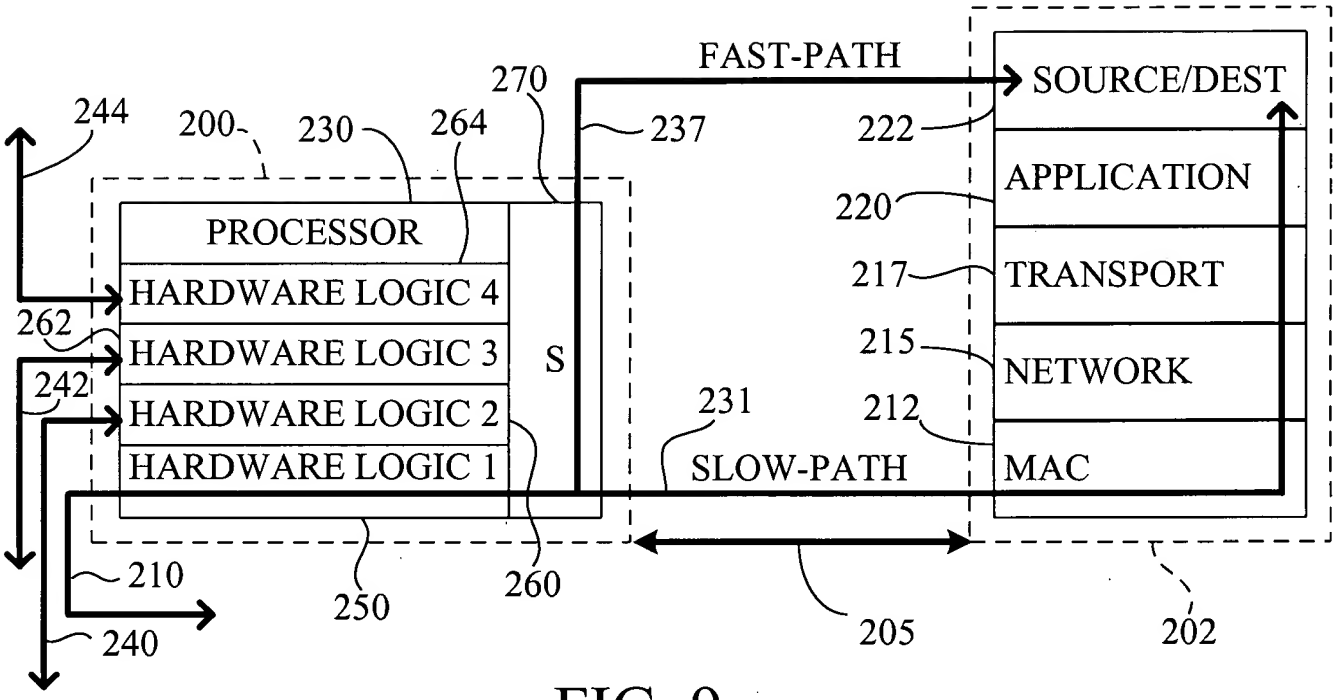
FAST-PATH
SOURCE/DEST
270
244
200
230
264
237
222
APPLICATION
220
PROCESSOR
217
TRANSPORT
HARDWARE LOGIC 4
262
HARDWARE LOGIC 3
S
215
NETWORK
242
HARDWARE LOGIC 2
231
212
HARDWARE LOGIC 1
SLOW-PATH
MAC
210
250
260
205
202
240

FIG. 9

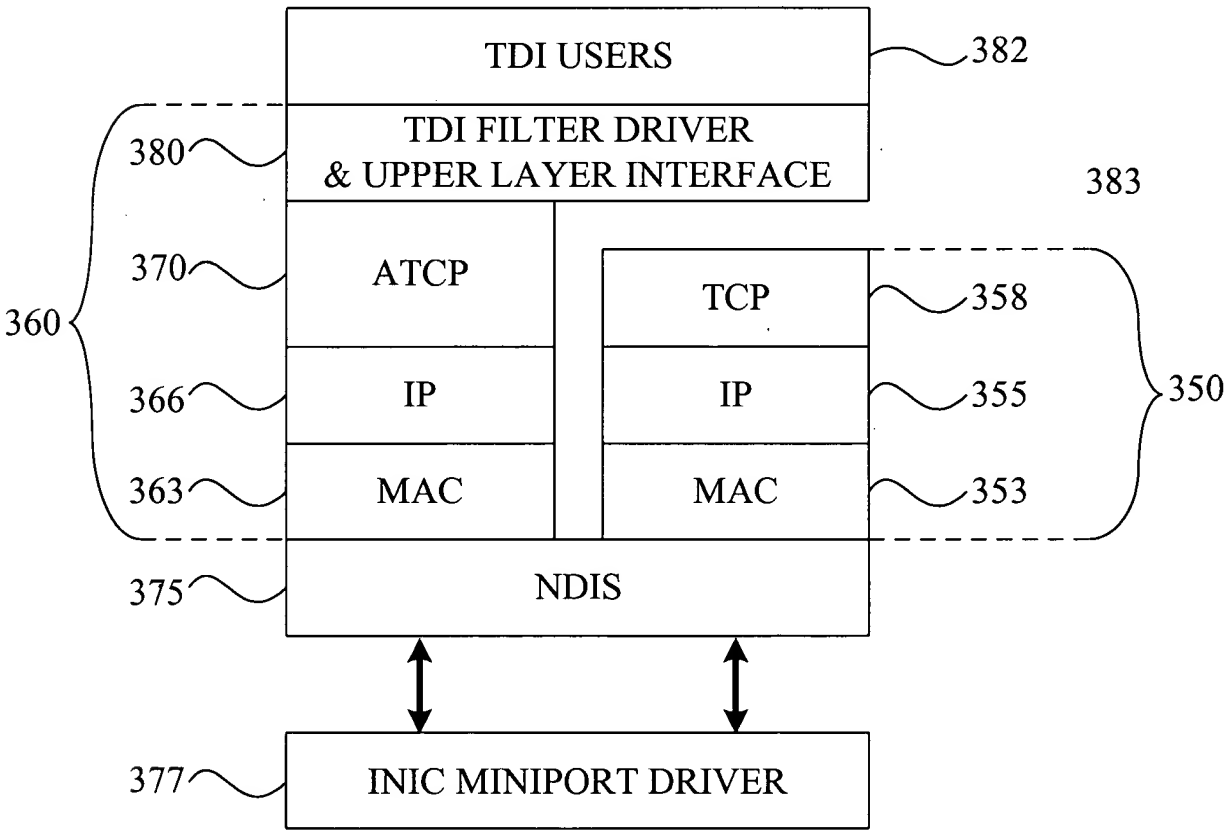
TDI USERS
382
TDI FILTER DRIVER
& UPPER LAYER INTERFACE
380
383
370
ATCP
TCP
358
360
366
IP
IP
355
350
363
MAC
MAC
353
375
NDIS
377
INIC MINIPORT DRIVER

FIG. 11

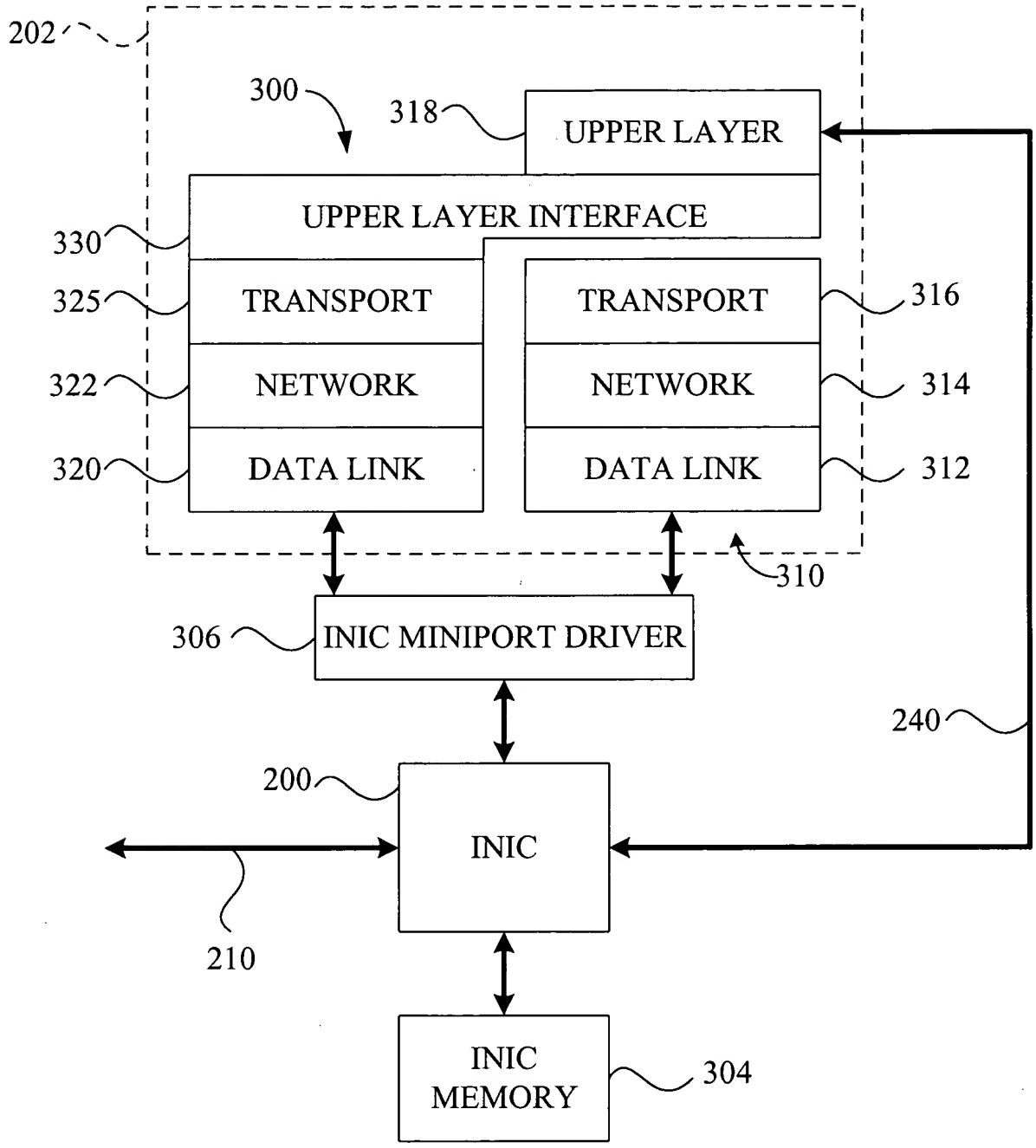
202
300
318
UPPER LAYER
UPPER LAYER INTERFACE
330
325
TRANSPORT
TRANSPORT
316
322
NETWORK
NETWORK
314
320
DATA LINK
DATA LINK
312
310
306
INIC MINIPORT DRIVER
240
200
INIC
210
INIC
MEMORY
304

FIG. 10

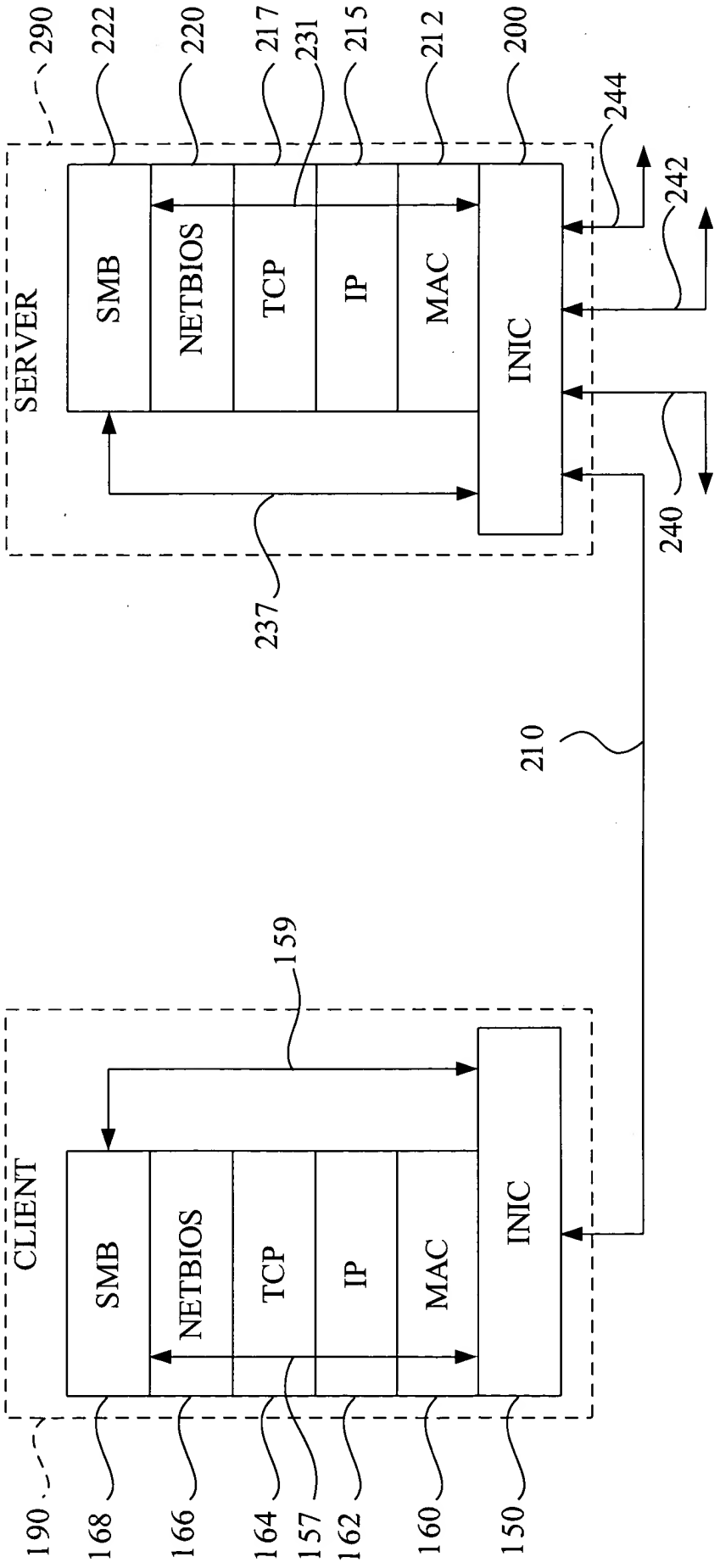
290
222
220
217
231
215
212
200
244
242
SERVER
SMB
NETBIOS
TCP
IP
MAC
INIC
240
237
210
159
CLIENT
SMB
NETBIOS
TCP
IP
MAC
INIC
190
168
166
164
157
162
160
150

FIG. 12

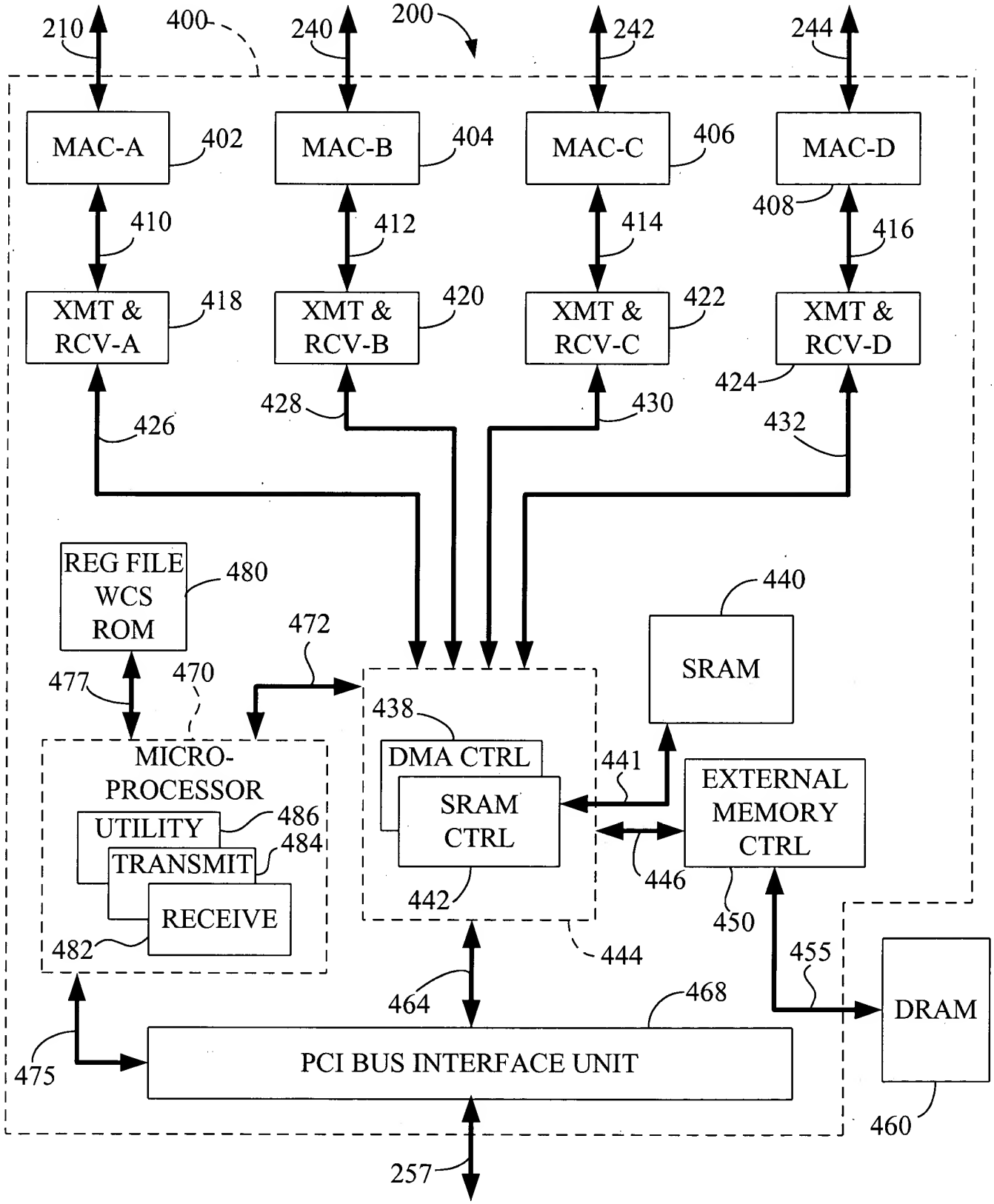
210
400
240
200
242
244
MAC-A
402
MAC-B
404
MAC-C
406
MAC-D
408
410
412
414
416
XMT & RCV-A
418
XMT & RCV-B
420
XMT & RCV-C
422
XMT & RCV-D
424
426
428
430
432
REG FILE WCS ROM
480
472
440
SRAM
477
470
438
DMA CTRL
441
MICRO-PROCESSOR
UTILITY
486
TRANSMIT
484
RECEIVE
482
SRAM CTRL
442
EXTERNAL MEMORY CTRL
446
450
444
455
DRAM
464
468
475
PCI BUS INTERFACE UNIT
460
257

FIG. 13

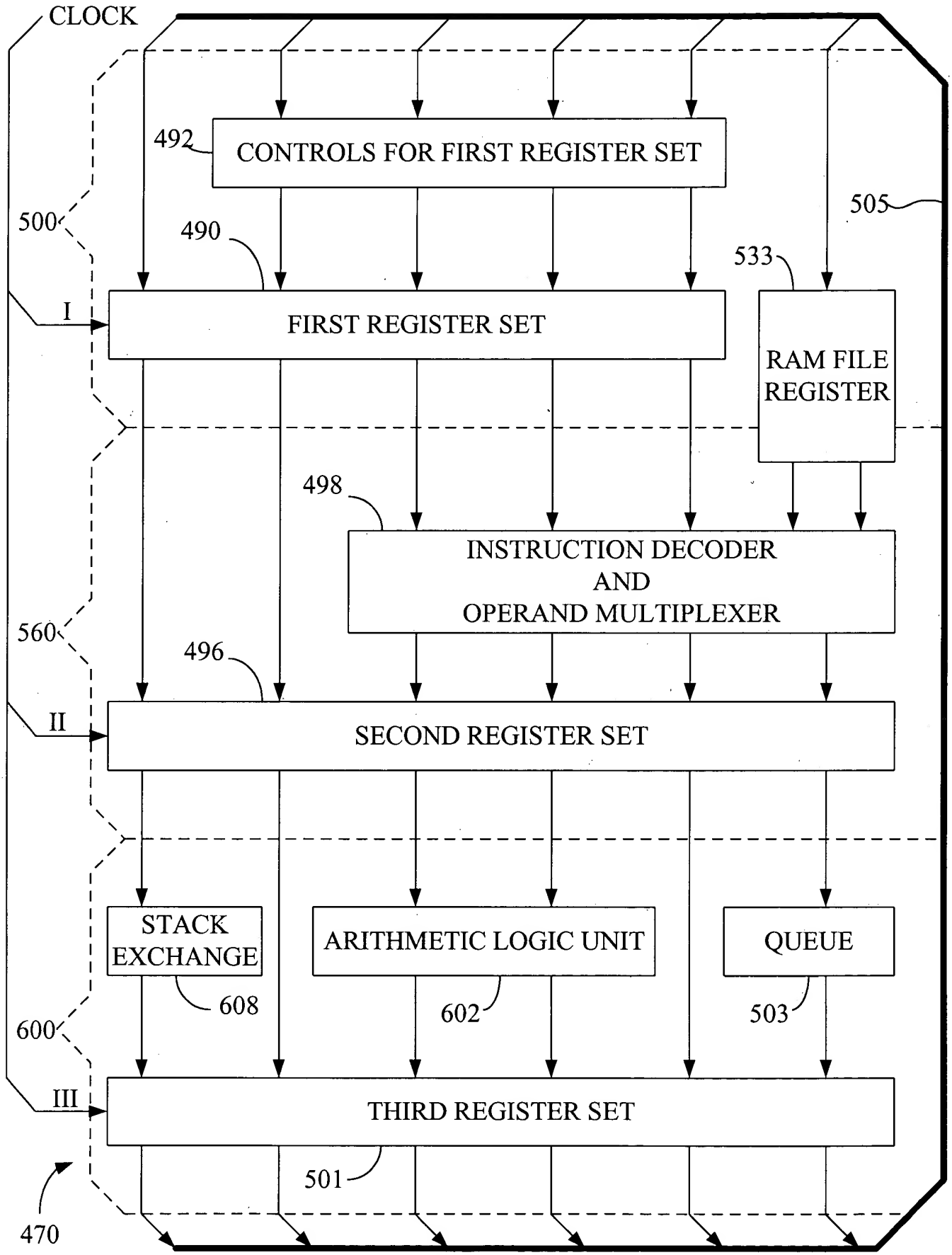

FIG. 14

0960204-0960808

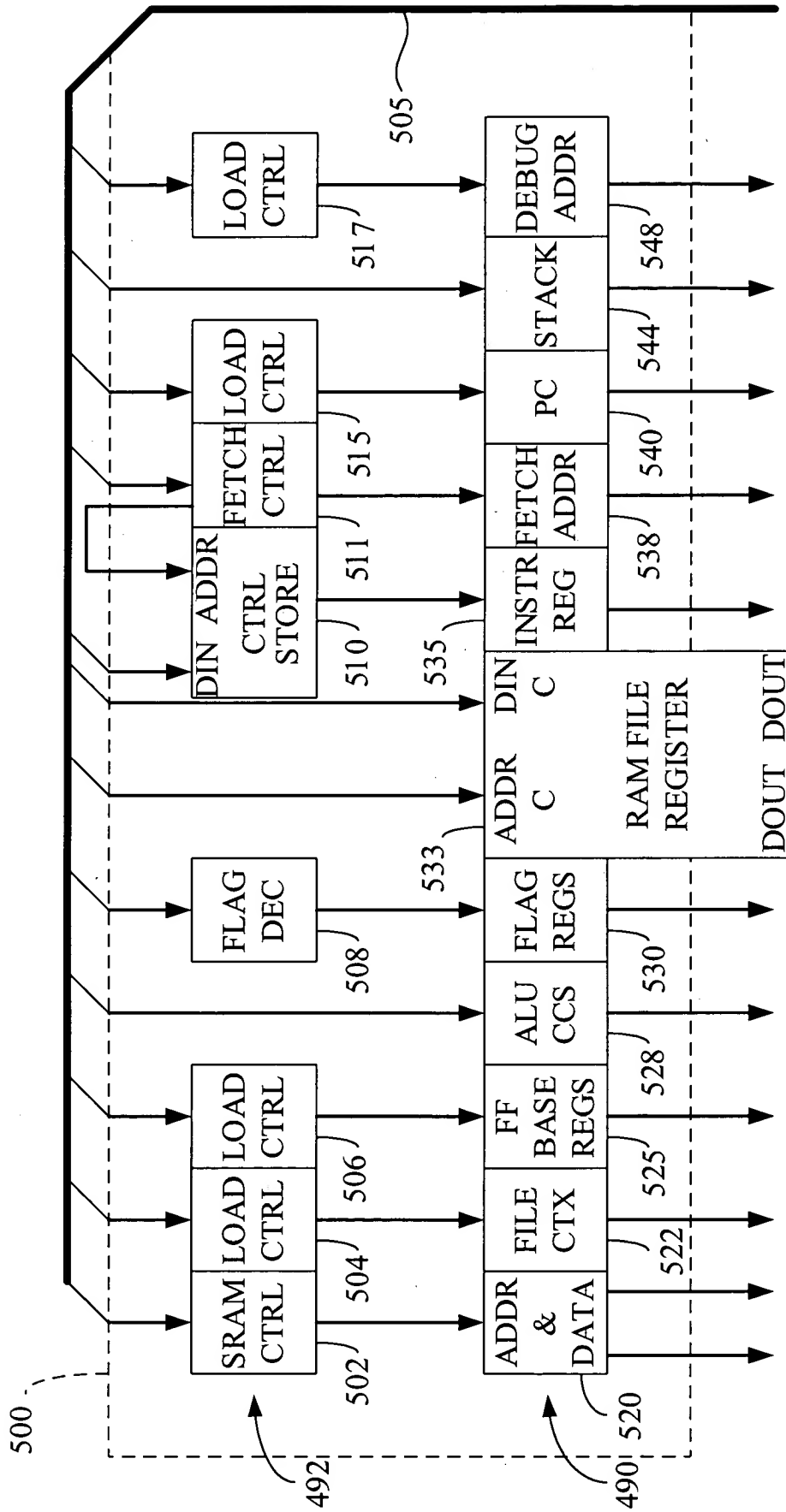
500
505
SRAM CTRL
LOAD CTRL
LOAD CTRL
LOAD CTRL
FETCH CTRL
LOAD CTRL
LOAD CTRL
502
504
506
508
510
511
515
517
ADDR & DATA
FILE CTX
FF BASE REGS
ALU CCS
FLAG REGS
DIN ADDR CTRL STORE
FLAG DEC
533
535
538
540
544
548
ADDR C
DIN C
INSTR REG
FETCH ADDR
PC
STACK
DEBUG ADDR
RAM FILE REGISTER
DOUT ADDR
DOUT ADDR
520
522
525
528
530
490
492

FIG. 15A

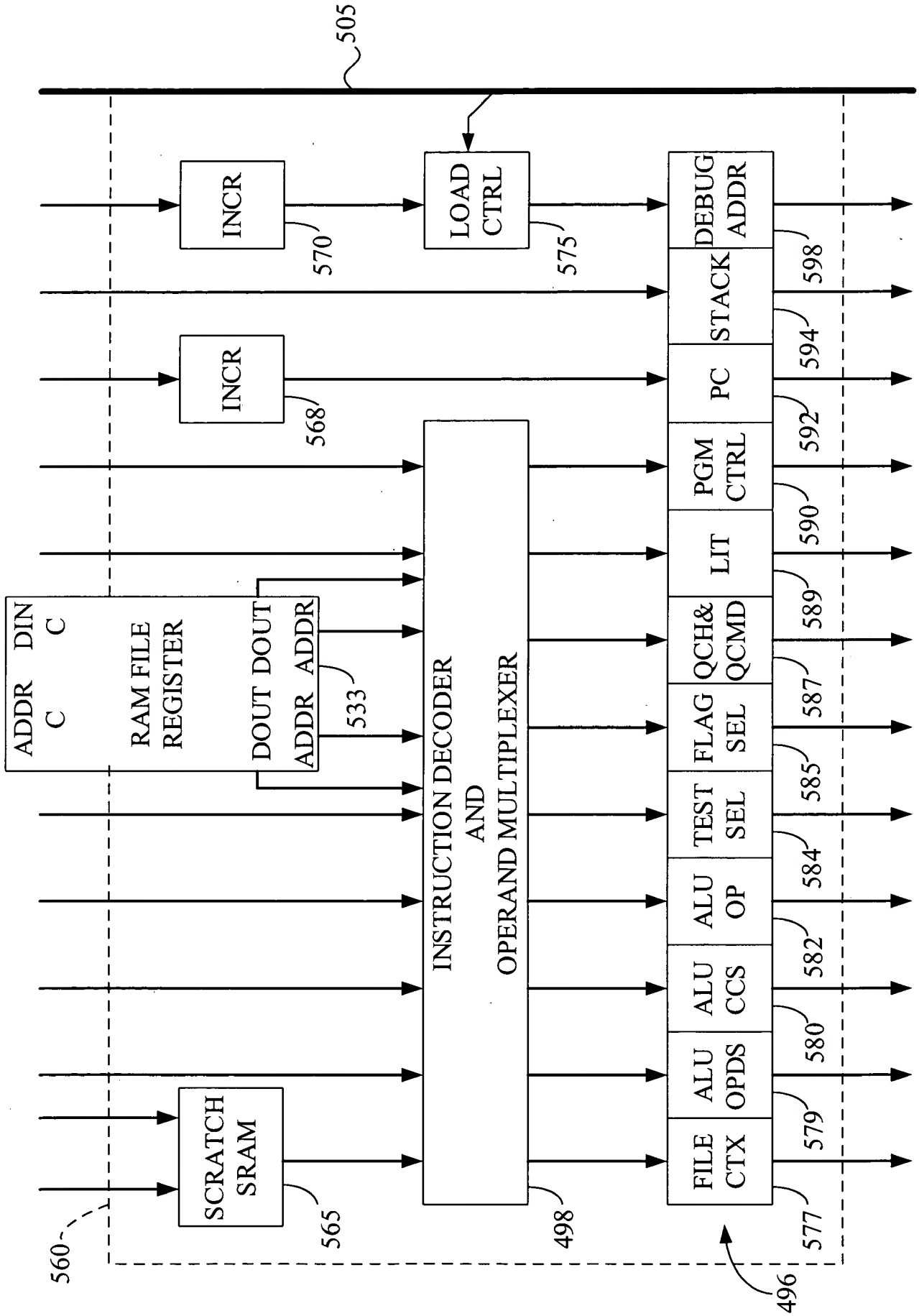
505
INCR
570
LOAD CTRL
575
DEBUG ADDR
598
STACK
594
INCR
568
PC
592
PGM CTRL
590
LIT
589
QCH& QCMD
587
FLAG SEL
585
TEST SEL
584
ALU OP
582
ALU CCS
580
ALU OPDS
579
FILE CTX
577
ADDR DIN C C
RAM FILE REGISTER
DOUT DOUT
ADDR ADDR
533
INSTRUCTION DECODER AND OPERAND MULTIPLEXER
498
SCRATCH SRAM
565
560
496

FIG. 15B

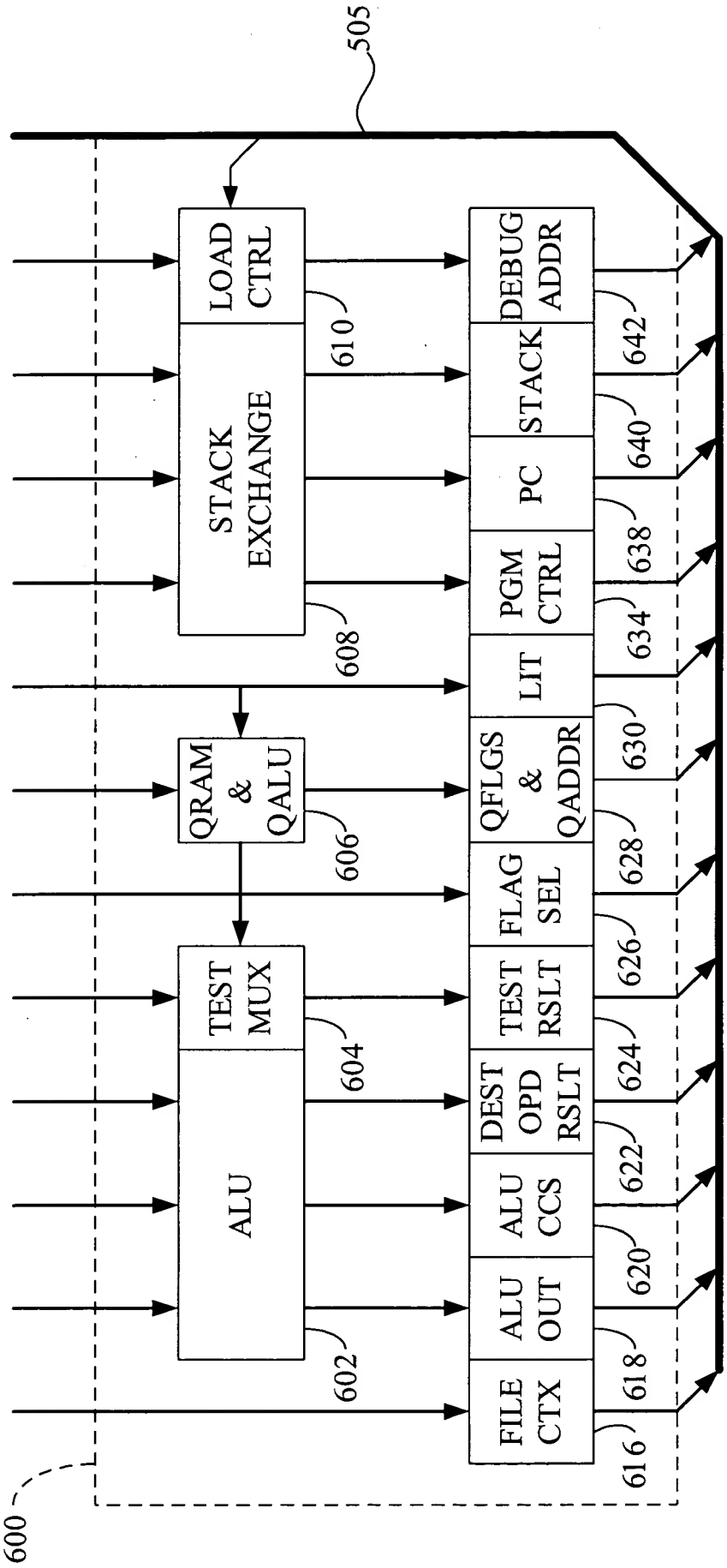
505
LOAD CTRL
STACK EXCHANGE
QRAM & QALU
TEST MUX
ALU
FILE CTX
ALU OUT
ALU CCS
DEST OPD RSLT
TEST RSLT
FLAG SEL
QFLGS & QADDR
LIT
PGM CTRL
PC
STACK
DEBUG ADDR
600
602
604
606
608
610
616
618
620
622
624
626
628
630
634
638
640
642

FIG. 15C